

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-10 (cancelled)

11. (new) An information recording apparatus for recording record information onto an information recording medium having a plurality of recording layers,

said information recording apparatus comprising:

a writing device capable of writing the record information into the plurality of recording layers;

a controlling device for controlling said writing device to write first border information or second border information with a smaller recording capacity than that of the first border information, at an end of the record information recorded into one recording layer of the plurality of recording layers; and

a detecting device for detecting a spare capacity of a data area of the one recording layer,

said controlling device controlling said writing device to write the first border information at the end if the detected spare capacity is equal to or greater than a first threshold value, and controlling said writing device to write all or part of the second border information between (i) the end and (ii) a start position of a middle area formed on an outer circumference side of the data area if the detected spare capacity is less than the first threshold value.

12. (new) The information recording apparatus according to claim 11, wherein the first threshold value is equal to the recording capacity of the first border information.

13. (new) The information recording apparatus according to claim 11, wherein said controlling device controls said writing device to write the first border information, bridging over a space area of the data area of the one recording layer and a data area of another recording layer of the plurality of recording layers, if the detected spare capacity is less than a second threshold value which is smaller than the first threshold value.

14. (new) The information recording apparatus according to claim 13, wherein the second threshold value is equal to the recording capacity of the second border information.

15. (new) The information recording apparatus according to claim 11, wherein the second border information does not include a stop block which is included in the first border information.

16. (new) An information recording method in an information recording apparatus comprising a writing device capable of writing record information into a plurality of recording layers with respect to an information recording medium having the plurality of recording layers,

said information recording method comprising:

a controlling process of controlling said writing device to write first border information or second border information with a smaller recording capacity than that of the first border information, at an end of the record information recorded into one recording layer of the plurality of recording layers; and

a detecting process of detecting a spare capacity of a data area of the one recording layer,

said controlling process controlling said writing device to write the first border information at the end if the detected spare capacity is equal to or greater than a first threshold value, and controlling said writing device to write all or part of the second border information between (i) the end and (ii) a start position of a middle area formed on an outer circumference side of the data area if the detected spare capacity is less than the first threshold value.

17. (new) A computer program product in a computer-readable medium for tangibly embodying a program of instructions executable by a computer provided in an information recording apparatus, to make the computer function as at least one of a controlling device, a detecting device, and a writing device, said information recording apparatus for recording record information onto an information recording medium having a plurality of recording layers,

said information recording apparatus comprising:

said writing device capable of writing the record information into the plurality of recording layers;

said controlling device for controlling said writing device to write first border information or second border information with a smaller recording capacity than that of the first border information, at an end of the record information recorded into one recording layer of the plurality of recording layers; and

said detecting device for detecting a spare capacity of a data area of the one recording layer,

said controlling device controlling said writing device to write the first border information at the end if the detected spare capacity is equal to or greater than a first threshold value, and controlling said writing device to write all or part of the second border information between (i) the end and (ii) a start position of a middle area formed on an

outer circumference side of the data area if the detected spare capacity is less than the first threshold value.

18. (new) The information recording apparatus according to claim 11, wherein

the information recording medium has two recording layers, and

said writing device writes the record information in order, from an inner circumference to an outer circumference of one recording layer, which is on a light emission side, out of the two recording layers, and writes the record information in order, from an inner circumference to an outer circumference of the other recording layer, which is on a rear of the light emission side.

19. (new) The information recording apparatus according to claim 18, wherein the one recording layer is the recording layer which is on the light emission side.

20. (new) The information recording apparatus according to claim 11, wherein the second border information is one portion of the first border information.